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Running head: CHINESE AND BRITISH ACCOUNTANTS

The Three-Component Model of Occupational Commitment:

A Comparative Study of Chinese and British Accountants

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## Abstract

We find some support for the cross-cultural validity of the Meyer, Allen & Smith (1993) three-component model of occupational commitment in samples of Chinese and British accountants. Normative and, unexpectedly, affective commitment were higher in the Chinese sample, and continuance commitment was higher amongst the British. There was some support for hypotheses on the consequences of the components of occupational commitment (occupational withdrawal cognitions and the intention to participate in professional activities). However, contrary to our hypotheses, our analysis suggested that there were no significant differences in these relationships between the two samples. We found a significant interaction between affective and continuance commitment in the analysis of occupational withdrawal cognitions, such that the relationship between each of these components and withdrawal cognitions was stronger where commitment on the other component was low.

### The Three-Component Model of Occupational Commitment:

#### A Comparative Study of Chinese and British Accountants

Meyer and Allen's (1997) model of organizational commitment has received a great deal of research attention, and the three-component approach of affective, normative and continuance commitment has been extended to occupational commitment (Meyer, Allen & Smith, 1993; Irving, Coleman & Cooper, 1997; Snape & Redman, 2003). All commitments are concerned with the binding of individuals to specific courses of action. For organizational commitment, this action is relevant to an employing organization, whilst for occupational commitment the action is relevant to an occupation (Meyer & Herscovitch, 2001). More specifically, occupational commitment is defined by Meyer et al. as a "commitment to a particular line of work" (1993: 540). Organizational commitment has received more research attention than occupational commitment (Lee, Carswell, & Allen, 2000), but the latter may become more important, especially if employees shift their commitment towards their occupations as single-organizational careers become more uncertain.

There is a need to evaluate the dimensionality and consequences of occupational commitment in the Chinese context. Cultural differences might conceivably have implications for how individuals commit to courses of action, for example with normative considerations being especially salient in a collectivist culture (e.g., Yao & Wang, 2006). Western studies have suggested that occupational commitment underpins the intention to remain in an occupation and to actively participate in professional activities, for example by attending professional meetings and participating in professional development (Meyer, Allen & Smith, 1993; Irving, Coleman & Cooper, 1997; Snape & Redman, 2003). We need to establish the extent to which these relationships generalize to China if we are to understand how Chinese professionals commit to, and participate in, their occupations. This is especially

important as professionals are likely to play a key role in the PRC's economy and society. A better understanding of the individual's relationship with their profession may provide insights into the development of professions as self-regulating occupational communities, and so further our understanding of the social and economic development process. In particular, regulators and professional associations will benefit from a better understanding of the nature of individuals' occupational commitment and of the factors likely to motivate individuals to remain in their occupation and to participate actively.

In this paper, we contribute to the literature on occupational commitment in three ways. First, we re-evaluate the Meyer et al. (1993) three-component model of occupational commitment in the Chinese context, using a sample of accountants from the Peoples' Republic of China (PRC). Specifically, we test for measurement equivalence between this and a British sample. Whilst there have been studies of the three-component model of *organizational* commitment using Chinese (Chen & Francesco, 2003; Cheng & Stockdale, 2003) and South Korean samples (Ko, Price & Mueller, 1997; Lee, Allen, Meyer & Rhee, 2001), there is a need to evaluate the three-component model of *occupational* commitment in an Asian context. An Asian study of occupational commitment known to us is a study of Taiwanese nurses, but this does not involve a direct comparison with a Western sample (Chang, Chi & Miao, 2007). Second, we examine the outcomes of occupational commitment. We focus on occupational withdrawal cognitions (i.e., the extent to which the individual is considering leaving the occupation) and the intention to participate in professional activities, and we compare the relationships across the Chinese and British samples. Finally, we examine whether the observed interactions between the commitment components in predicting withdrawal cognitions seen in recent Western studies of organizational and occupational commitment extend to the accounting and Chinese contexts.

#### The Meyer & Allen Model of Commitment

The Meyer and Allen (1997) three-component model of commitment consists of affective, normative and continuance components. Affective commitment is values based, involving identification and enthusiasm. In contrast, normative commitment is based on a sense of obligation, whilst continuance commitment reflects high perceived costs of quitting. There is considerable support for the three-component model of organizational commitment (e.g., Meyer & Allen, 1997). Meyer et al. (1993) generalized the three-component model to focus on commitment to an *occupation*. The three-component model of occupational commitment has received empirical support amongst nurses (Meyer et al., 1993), Canadian government employees (Irving et al., 1997), and UK human resource management specialists (Snape & Redman, 2003).

There have been several studies of the three-component model of *organizational* commitment in the Chinese (Chen & Francesco, 2003; Cheng and Stockdale, 2003) and the South Korean context (Ko, Price & Mueller, 1997; Lee, Allen, Meyer & Rhee, 2001). In general, the studies provide support for the three-factor model relative to alternative factor structures (Chen & Francesco, 2003; Cheng and Stockdale, 2003; Ko, Price & Mueller, 1997; Lee, Allen, Meyer & Rhee, 2001), in some cases with fit indices similar to those found in the original Canadian samples (e.g., Cheng and Stockdale, 2003: 479). We anticipate that these findings on the applicability of the three-component model of organizational commitment in an Asian context, which suggests that the affective, normative and continuance bases of commitment are meaningful for Asians, will generalize to the occupational focus. Chang, Chi and Miao's (2007) study provides some evidence that this is so, at least for Taiwanese nurses. We evaluate this further, testing the following hypothesis:

Hypothesis 1. The three-component model of occupational commitment (affective, normative and continuance) generalizes to the PRC context.

#### Outcomes of Commitment

Affective, normative and continuance commitment each involve a continuing sense of attachment to the occupation, the first motivated by an active desire to remain attached, the second by a sense of duty, and the third by a calculation of relative costs and benefits (Meyer et al., 1993). Given that each involves an attachment to the occupation, albeit for different reasons, it is likely that all three will be negatively related to occupational withdrawal cognitions. Studies of occupational commitment with Western samples provide some evidence for this. Meyer et al. (1993), in their study of Canadian nurses found negative associations between all three commitment dimensions and intent to leave the occupation. Snape and Redman (2003), studying HK human resource management specialists, found significant main effect negative associations with occupational withdrawal cognitions only for affective and continuance commitment, although normative commitment was negatively associated with occupational withdrawal cognitions amongst respondents with higher levels of continuance commitment. (This raises the possibility of interactions between commitment components, which we discuss below.)

Whilst these arguments provide a basis for hypothesizing a negative association between withdrawal cognitions and all three commitment components, we may expect that the relative strengths of these effects will differ. Affective commitment reflects a desire to act, and so is likely to involve a stronger attachment than either normative or continuance commitment (Meyer & Herscovitch, 2001). Normative commitment is based on a sense of obligation, which can only be expected to last until the obligation is discharged in some way. Continuance commitment is based primarily on the costs of leaving, and this may be expected to evaporate if a way of avoiding these costs or an opportunity with sufficiently attractive benefits can be found. The Western findings on occupational commitment are consistent with this, with affective commitment having the strongest negative relationship

with withdrawal cognitions and intent to leave the occupation (Meyer et al., 1993; Snape & Redman, 2003). Thus, we hypothesize as follows:

Hypothesis 2. All three dimensions of occupational commitment will be negatively associated with occupational withdrawal cognitions. This relationship will be strongest in the case of affective commitment.

Professional activities such as attending professional meetings, participating in conferences, or serving as a professional committee member, are not usually defined as part of role requirements, and instead represent discretionary extra-role behaviors. As such, they share the characteristics of organizational citizenship behaviors, being volitional and sensitive to individual attitudes (Organ, Podsakoff, & MacKenzie, 2006). This suggests that affective commitment, reflecting an enthusiasm for the occupation, is likely to be positively associated with high levels of participation in professional activities. Normative commitment may also be associated with participation in professional activities, as a sense of obligation to the occupation is likely to be associated with a willingness to keep oneself involved and up to date on developments in the profession. However, it is likely that the relationship between commitment and intention to participate in professional activities will be stronger for affective than for normative commitment (Meyer & Herscovitch, 2001). Affective commitment is likely to result in a broader sense of commitment, based on an active willingness to be involved, whilst normative commitment is based on a sense of obligation or duty, which is less likely to be associated with enthusiastic and self-motivated participation in discretionary behaviors. Based on these arguments, we hypothesize as follows:

Hypothesis 3a. Affective and normative commitment will be positively associated with the intention to participate in professional activities. This relationship will be stronger in the case of affective commitment.



It is anticipated that continuance commitment will not positively predict the intention to participate in these activities, since such a commitment will be associated only with those behaviors that help to avoid the costs of leaving the occupation. There may even be a negative relationship, since those individuals who feel themselves to be locked into the occupation by the costs of leaving may respond with resentment or a sense of helplessness, resulting in their doing no more than the essential minimum (Meyer et al., 1993). Thus:

Hypothesis 3b. Continuance commitment will be negatively associated with the intention to participate in professional activities.

### Commitment and Culture

Asian and Western cultures have different views of the individual's relationship with society, with far-reaching implications for attitudes and behaviors (e.g., Wasti, 2003). Asian cultures tend to emphasize the relatedness of individuals to each other and an interdependent view of the self, whilst Western cultures construe the self as an independent, autonomous and self contained entity (Markus & Kitayama, 1991). People influenced by an Asian culture see the self as part of a set of social relationships. They are highly sensitive to the needs and feelings of in-group members, and are likely to subordinate their own preferences to these and to seek to maintain in-group harmony (Markus & Kitayama, 1991; Triandis, 1995; Wasti, 2003). Thus, collectivist Chinese societies place greater emphasis on loyalty to the group and on social obligations than do more individualistic Western societies (Hui and Tan, 1996).

Given this emphasis on social obligations, and the fact that familial and cultural socialization may be key antecedents of normative commitment (Wiener, 1982; Meyer & Allen, 1997), it is likely that normative commitment will be particularly salient in a collectivist culture (Yao & Wang, 2006). On the other hand, in a culture characterized by high levels of individualism, individual preferences and goals are likely to be given a higher priority, and attitudes rather than norms will loom larger as an influence on behavioral

intentions (Bontempo & Rivero, 1992). Here, individuals' affective attachments and considerations of individual costs and benefits, reflected in affective and continuance commitment respectively, are likely to be more important than social norms or obligation in shaping behavioral intentions. These cross-cultural differences in the salience of normative influences are reflected in research on the theory of planned behavior, which suggests that subjective norms are more significant amongst those from collectivist cultures, whilst attitudes are relatively more important predictors of behavior for those from individualist cultures (van Hooft, Born, Taris, & van der Flier, 2004; Song, Wanberg, Niu, & Xie, 2006). There is also support for such cultural differences in Wasti's (2003) study of organizational commitment, with normative commitment and social factors being weaker predictors of turnover intentions amongst individuals endorsing idiocentric (i.e., individualistic) values, and social factors being a stronger predictor of turnover intentions amongst individuals with allocentric (i.e., collectivist) values.

These arguments suggest two sets of "cultural" hypotheses. First, we expect to see differences between the Chinese and British samples in the levels of commitment across the three components, as follows:

Hypothesis 4a. Normative commitment will be higher in the Chinese than in the British sample.

Hypothesis 4b. Affective and continuance commitment will be higher in the British than in the Chinese sample.

Second, we suggest diverging hypotheses on the outcomes of commitment:

Hypothesis 5a. In the Chinese sample, normative commitment will have a stronger effect than affective and continuance commitment on occupational withdrawal cognitions and intention to participate in professional activities.

Hypothesis 5b. In the British sample, affective and continuance commitment will have a stronger effect than normative commitment on occupational withdrawal cognitions and intention to participate in professional activities.

#### Interaction Effects

It has been suggested that the three commitment components may interact in determining withdrawal cognitions and behaviors, in that high commitment on just one component may be sufficient to produce a strong attachment, so that an incremental increase in either of the other two components will tend to have a lesser effect (Meyer & Herscovitch, 2001). Significant interaction effects between components have been found in Western studies of *organizational* commitment, for example between affective and continuance commitment in predicting absence and intention to remain (Somers, 1995), and between normative and continuance commitment in predicting turnover intentions (Jaros, 1997). In their studies of Chinese employees, Cheng and Stockdale (2003) found significant interactions between normative and continuance commitment for job satisfaction and turnover intention, whilst Chen and Francesco (2003) found interactions between normative and affective commitment for in-role performance and organizational citizenship behaviors. For *occupational* commitment, Snape and Redman (2003) found that normative and continuance commitment interacted in predicting occupational withdrawal cognitions. In all these studies, the interaction was such that the relationship between one component and the outcome was stronger when commitment on the other component was low.

Normative commitment may be especially likely to play a moderating role in the Chinese context, given its particular salience in such a culture (Cheng & Stockdale, 2003; Chen & Francesco, 2003). However, there is a strong theoretical rationale for interactions between the commitment components regardless of culture, based on a “sufficiency” argument, that commitment on one component alone may be sufficient to produce lower

withdrawal cognitions, so that increments in commitment components will be associated with smaller effects on withdrawal cognitions when commitment on one or other components are already high (Meyer & Herscovitch, 2001). Consistent with this, interactions between normative and other commitments have been found in both the Western and Chinese literatures. Thus, we offer a general interaction hypothesis, undifferentiated by culture:

Hypothesis 6. The three components of occupational commitment will interact in predicting occupational withdrawal cognitions, such that the relationships between individual components of occupational commitment and withdrawal cognitions will be stronger when commitment on other components is low.

## Method

### *Sample*

*Chinese sample.* The Chinese sample comes from a study of members of the Chinese Institute of Certified Public Accountants (CICPA) working in Beijing. CICPA is a professional association for accountants, people working in asset evaluation, and certified public tax agents, working in the business and public sectors. In China, those with a tertiary or equivalent qualification can register with CICPA by accruing two years' relevant work experience after passing the qualifying examination. Previously, accountants were certified according to experience and educational background, and most were retired accounting or financial officers of government agencies. This changed in 1995, when the Law of Certified Public Accountants, promulgated in 1993, stipulated that qualification could only be achieved through examination. Nowadays, the career of a newly registered accountant normally begins as a salaried employee in an accounting firm. The career path is then to become a partner in an accounting firm or to join an enterprise as in-house accountant. Accountants are subject to CICPA's continuing education requirement, of 80 hours' training organized by CICPA or equivalent activities in every two-year assessment cycle.

Eighty-two accountancy firms were randomly selected from a data bank compiled by the Beijing Academy of Social Sciences. The management of each of these firms was approached, and 55 firms agreed to participate. A maximum of seven accountants were then randomly selected from the staff list supplied by each firm. During May-June 2005, questionnaires were distributed to 333 selected accountants. All completed the questionnaire, but several responses were eliminated because of missing values on some variables, providing an effective response rate of 86 percent. Of these 285 responses, 58 percent were female, 75 per cent were under 40 years old, and mean organizational and occupational tenure were 3.92 and 4.28 years respectively.

*British sample.* The British sample involved members of the Chartered Institute of Management Accountants (CIMA), a professional association of management accountants and financial managers. This sample consists of accounting professionals working in industry, commerce, and the not-for-profit and public sectors. Questionnaires were distributed to 3000 individual CIMA members in Britain during March and April 2002, and 812 questionnaires were returned. The response rate of 27 percent compares favorably with those for accountants generally in Britain and for CIMA surveys in particular (Joseph, Turley, Burns, Lewis, Scarpens, & Southworth, 1996). The sample of 812 included 629 associates, the main professional grade, and 170 fellows, with 4 unspecified, and was reduced to 788 because of missing values on some study variables. Slightly less than 38 percent were under 40 years old, mean organization tenure was 9.20 years, and occupational tenure was 19.50 years. Seventy six percent were male.

Comparing the two samples, the British sample had significantly longer occupational tenure, 19.50 years compared to 4.28 years for the Chinese sample ( $t = 40.73$ ,  $df = 1070.26$ ,  $p < .001$ ). Organizational tenure was also significantly longer for the British sample (9.20 versus 3.92 years;  $t = 16.19$ ,  $df = 1068.23$ ,  $p < .001$ ). The British sample was older; with age

measured in categories from 1 (under 25 years old) to 8 (over 55), means were 5.26 and 3.74 for the British and Chinese samples respectively ( $t = 12.57$ ,  $df = 1071$ ,  $p < .001$ ). Finally, the British sample had proportionately fewer females, 24 percent compared to 58 percent for the Chinese sample (Chi-square = 106.94,  $df = 1$ ,  $p < .001$ ).

### *Measures*

Occupational commitment was measured using the Meyer et al. (1993) scales, with six items for each component. Since the scale was designed for use with nurses, we made minor changes to some of the items, for example replacing 'nursing profession' with 'accountancy profession'. One of the continuance commitment items, 'There are no pressures to keep me from changing professions', had a standardized loading of only .218 and .288 in earlier studies of PRC lawyers in Guangzhou and Beijing respectively (Snape, Lo & Redman, 2006), and had the lowest loading of any item in the Meyer et al. (1993) and Irving et al. (1997) studies. We decided to replace this item with another: 'For me personally, the costs of leaving the accountancy profession would be far greater than the benefits'. This is a less ambiguous statement of the personal sacrifice notion which underlies continuance commitment, and provided an acceptable loading on the continuance commitment construct in our subsequent analyses.

Occupational withdrawal cognitions were measured with three items, developed for this study, for example: 'I frequently think of quitting the accountancy profession altogether'. Intention to participate in professional activities was measured as the intention to participate in four specified activities. Participants responded on a seven-point scale from 'not at all likely' to 'extremely likely'. The items were: 'Attend professional meetings organized by [the professional association]', 'Participate in social activities organized by [the professional association]', 'Present a paper at a conference or meeting organized by [the professional association]', and 'Serve as a committee member of [the professional association]'. These

items were developed for this study. An exploratory factor analysis with oblique rotation was conducted for the PRC and British samples separately, each producing a single factor with an eigenvalue greater than one, and accounting for 62.5 and 64.0 percent of variance in the PRC and British samples respectively.

Having characterized participation in professional activities as extra-role behavior, it is possible that such behaviors will differ between China and the West (see Farh, Zhong and Organ [2004] for a similar discussion of organizational citizenship behaviors). However, in assessing professional participation, we deliberately used generic items, so as to minimize the effect of particular institutional arrangements on our measure. In preparing our questionnaires, we were careful to establish that professionals in each location found these items meaningful and felt able to respond to them.

We conducted Harman's one-factor test (Podsakoff & Organ, 1986), to evaluate the significance of common method bias. We entered all attitudinal items in the measurement model into a principal components factor analysis. For the British sample, rather than finding one dominant "general" factor, we found five factors with eigenvalues greater than one, as anticipated, accounting for a combined 60 percent of variance, with no single factor accounting for more than 22 percent of variance. Similar findings emerged for the Chinese sample, with six factors having eigenvalues greater than one (the sixth factor was marginal at 1.08), accounting for a combined 62 percent of variance, with no one factor accounting for more than 23 percent of variance. In both samples, a varimax rotation revealed distinct factors which were interpretable in terms of the anticipated measurement model. These findings suggest that common method variance was not a serious problem in our data.

Control variables were included in the regression analyses. Occupational tenure was measured in years, and gender was a dummy variable (1 = female; 0 = male). Age was measured as a categorical variable, ranging from 1 (under 25 years old) to 8 (over 55). Tenure,

age, and gender are generally used as controls in studies of the consequences of commitment (e.g., Chen et al., 2003; Cheng et al., 2003; Snape & Redman, 2003), because such demographic factors may influence individual's in-role and extra-role behaviors (Chen et al., 2003: 496). Since we are studying occupational commitment and occupation-specific outcomes, we choose to control for occupational rather than organizational tenure in our analyses. We could not include education and job position as controls, because we did not have exactly comparable measures for these variables across the two samples.

The questionnaire was developed in English and the British sample responded to this version. We followed a back translation procedure, to produce an equivalent Chinese language version. We also had two local researchers recommend any necessary modifications in the Chinese to accommodate local Beijing usage. Finally, we asked several Chinese accountants to complete the questionnaire and to comment on the clarity of individual questions. A small number of relatively minor adjustments were made as a result of these two steps. Chinese respondents completed this final Chinese-language version. All multi-item scales were calculated as unweighted averages of their measurement items. To test the interaction hypotheses, the commitment scales were mean centered (Aiken & West, 1991).

## Results

### *The dimensionality of commitment*

We began by assessing the factor structure of the commitment model, estimating three-, two- and single-factor models for the Chinese and British samples separately, with the two-factor model combining the affective and normative components. The results are shown in the first two sections of table 1. The hypothesized three-factor model was the best-fitting model in both samples, with large significant changes in  $\chi^2$  and improvements in each of the fit indices (the comparative fit index [CFI] and nonnormed fit index [NNFI] increased by more than 0.01 at each step) as we move through the nested sequence from 1-factor to 2- and



3- factor oblique models. We also tested a three-factor orthogonal model, in which the commitment factors were not allowed to correlate. In both samples, this produced a deterioration in fit relative to the three-factor oblique model, suggesting that the latter was preferable. The fit indices for the preferred three-factor oblique model were reasonably good for the British sample, with the goodness of fit index (GFI) and CFI above .9, the NNFI just slightly below, and with a root mean square error of approximation (RMSEA) below .08. For the Chinese sample, the hypothesized three-factor oblique model again provided the best fit of those tested, although this time the indices fell a little short of the benchmarks for a good fit. In both the Chinese and British samples, all factor loadings were significant ( $p < .001$ ), with no standardized factor loadings below .4 and most rather higher. Overall, the oblique three-factor model was the best-fitting model in both samples.

#### *Measurement model and equivalence*

To test for measurement equivalence across the two samples, we conducted a two-group analysis of the measurement model, with the three components of occupational commitment, along with withdrawal cognitions and the intention to participate in professional activities (see table 1, section c.). In comparing models, following van Hooft, Born, Taris, and van der Flier (2006), we focused on the CFI and NNFI, rather than the  $\chi^2$  difference test, which is subject to the same problems as the overall  $\chi^2$  test (e.g., Anderson & Gerbing, 1988).

We began with an unconstrained model, with all estimated parameters allowed to vary freely across the two groups. This provided a reasonable fit, and is shown as the “free parameters” model in table 1. Second, we estimated a constrained “factor loadings equal” model, which set factor loadings equal for the Chinese and British groups. The change in *CFI* and *NNFI* relative to the free parameters model were only 0.005 and less than 0.001 respectively. Third, we tested for equality of factor variances across the two samples. This “factor loadings and variances equal” model provided a change in *CFI* and *NNFI* relative to

the free parameters model of 0.009 and 0.003. Finally, we constrained the factor covariances to be equal across the two groups, the “factor loadings, variances and covariances equal” model, and the changes in *CFI* and *NNFI* were 0.013 and 0.004. In general, the changes in *CFI* and *NNFI* were smaller than the 0.01 which has been offered as an appropriate critical value when assessing measurement invariance across groups (van Hooft, et al., 2006; Cheung & Rensvold, 2002), the only exception being a slightly higher change in *CFI*, but not *NNFI*, at the last step. We conclude that the measurement model was not significantly different for the British and Chinese samples, in terms of factor structure, loadings and variances, if not covariances. This implies at least partial measurement equivalence and is consistent with hypothesis 1, suggesting that the three-component model of occupational commitment generalizes to the Chinese context.

Since some of our hypotheses concerned possible differences in structural parameters between the Chinese and British samples, we also conducted an analysis to test for invariance in these parameters (van Hooft, et al., 2006). We added structural paths from each of the commitment dimensions to withdrawal cognitions and the intention to participate in professional activities. We compared an unconstrained model with these paths estimated freely across the Chinese and British samples, and a constrained model with the paths set equal across the samples. The unconstrained model provided a reasonable fit ( $\chi^2 = 2136.464$ ;  $df = 555$ ;  $GFI = 0.860$ ;  $CFI = 0.852$ ;  $NNFI = 0.840$ ;  $RMSEA = 0.052$ ), as did the constrained model ( $\chi^2 = 2152.588$ ;  $df = 561$   $GFI = 0.859$ ;  $CFI = 0.851$ ;  $NNFI = 0.841$ ;  $RMSEA = 0.051$ ). The changes in *CFI* and *NNFI* were very small, with no improvement in fit due to setting the structural paths free. This suggests no significant difference in structural paths between the Chinese and British samples, providing no support for the divergent cultural patterns suggested by hypotheses 5a and 5b.

Given the findings on equivalence in structural parameters, it is appropriate to test the remaining structural hypotheses in common for both samples. We therefore report results for a pooling of the two samples. Table 2 shows the means, standard deviations, scale reliabilities and correlations for the study variables used to test our hypotheses on withdrawal cognitions and the intention to participate in professional activities. Scale reliabilities were acceptable, all exceeding .7.

*Withdrawal cognitions and the intention to participate in professional activities*

In table 3, we report regression analysis for occupational withdrawal cognitions and professional participation. We begin by testing hypothesis 2, which suggested that all three dimensions would be negatively associated with withdrawal cognitions, with affective commitment having the strongest relationship. However, withdrawal cognitions were significantly associated with affective and continuance commitment, but not with normative commitment. The relative importance of the commitment components was explored further through a usefulness analysis, presented in table 4. This shows the incremental contribution to explained variance by each component, over and above that explained by the control variables and the other two components. This suggests that affective commitment accounted for the greatest share of variance, as anticipated, followed by continuance commitment. These findings provide partial support for hypothesis 2, the non-significance of normative commitment being the only contrary finding.

The regression analysis suggested that both affective and normative commitment were positively associated, and continuance commitment negatively associated, with the intention to participate in professional activities (table 3). The usefulness analysis suggested that normative commitment accounted for the greatest share of variance, followed by continuance and then by affective commitment (table 4). The positive association for both affective and normative commitment is consistent with hypothesis 3a, although we had anticipated that the

relationship would be stronger for affective, rather than normative commitment. Hence, we have partial support for hypothesis 3a. Hypothesis 3b, which anticipated that continuance commitment would be negatively associated with the intention to participate in professional activities, was fully supported.

The Chinese sample had a significantly higher mean level of affective (British mean = 5.18, Chinese mean = 5.46,  $t = 4.45$ ,  $df = 583.52$ ,  $p < .001$ ) and, especially, of normative commitment (British mean = 2.80, Chinese mean = 4.52,  $t = 24.78$ ,  $df = 1071$ ,  $p < .001$ ), whilst the British sample had a higher level of continuance commitment (British mean = 4.54, Chinese mean = 3.99,  $t = 6.58$ ,  $df = 570.35$ ,  $p < .001$ ). These sample differences were significant even after controlling for age, gender and occupational tenure. Thus, regression analyses with affective, normative and continuance commitment as dependent variables provided significant coefficients on a country dummy variable (Britain = 0, China = 1), positive for affective ( $\beta = .22$ ,  $p < .001$ ,  $\Delta R^2 = .03$ ,  $\Delta F = 28.12$ ,  $p < .001$ ,  $R^2 = .04$ , and  $F = 10.32$ ,  $p < .001$  for the addition of the country dummy) and normative commitment ( $\beta = .69$ ,  $p < .001$ ,  $\Delta R^2 = .26$ ,  $\Delta F = 450.25$ ,  $p < .001$ ,  $R^2 = .38$ , and  $F = 164.80$ ,  $p < .001$ ) and negative for continuance commitment ( $\beta = -.10$ ,  $p = .011$ ,  $\Delta R^2 = .01$ ,  $\Delta F = 6.41$ ,  $p = .011$ ,  $R^2 = .04$ , and  $F = 12.04$ ,  $p < .001$ ). The normative commitment finding confirms our hypothesis 4a on higher mean normative commitment in the Chinese context. However, hypothesis 4b was only partially supported, as only continuance (and not affective) commitment was higher in the British sample. We have already rejected our other “cultural” hypothesis, hypothesis 5.

We found partial support for hypothesis 6, with a significant two-way interaction between affective and continuance commitment for occupational withdrawal cognitions (table 3). We explored this further by examining the relationship between affective commitment and occupational withdrawal cognitions at “high” and “low” levels of continuance commitment. This analysis was based on the procedures suggested by Aiken and

West (1991), with one standard deviation above and below the mean representing “high” and “low” commitment. We included the control variables, main commitment effects, and the significant interaction term in the analysis. With “low” continuance commitment, the simple slope of the affective commitment-withdrawal cognitions relationship was more steeply negative (unstandardized slope =  $-.676$ ;  $p < .001$ ), than when continuance commitment was high (unstandardized slope =  $-.458$ ;  $p < .001$ ). This is consistent with our hypothesis, suggesting that the negative relationship between the commitment dimension and withdrawal cognitions is stronger when commitment on the other dimension is low.

### Discussion

Our findings provide support for the Meyer et al. (1993) three-component model of occupational commitment, in both Chinese and British samples. Fit indices demonstrated that the hypothesized three-factor oblique model provided the best fit amongst alternatives. Our fit indices for this model were less favorable in the Chinese sample than in the British sample, but they were comparable to those found in Asian studies of the three-component model of *organizational* commitment (e.g., Chen & Francesco, 2003; Cheng & Stockdale, 2003; Ko, et al., 1997), and to Chang, Chi and Miao's (2007) Taiwanese study of *occupational* commitment. Although we conducted our correlation and regression analysis for the pooled Chinese-British sample, for comparative purposes it is interesting to note that for our Chinese sample alone, we get a similar correlation between affective and normative commitment to that found in other Asian studies. Our correlation in the Chinese sample is similar to the findings for organizational commitment in Chen and Francesco's (2003) Chinese sample, somewhat lower than in Ko et al.'s (1997) Korean samples, and similar to that found in Chang, Chi and Miao's (2007) study of occupational commitment. However, in spite of the significant correlation our CFA results suggest that affective and normative occupational commitment were clearly differentiated.

Our comparison of the two samples provided some evidence of measurement equivalence across the Chinese and British samples, providing support for the cross-cultural validity of the three-component model of occupational commitment. However, we found some evidence of cultural differences in patterns of occupational commitment. Continuance commitment was higher in the British sample, but our Chinese sample had higher levels of normative and affective commitment. The findings on continuance and normative commitment are as anticipated, but we had expected that affective commitment would be higher in the British sample. Although contrary to our cultural hypothesis, higher affective as well as normative commitment in the Chinese sample is consistent with earlier findings that the affective and normative dimensions are positively correlated (e.g., Meyer & Allen, 1997). This might be due to their having common antecedents in the form of “positive work experiences” (Meyer et al., 1993: 546). If Chinese professionals were more likely to perceive their work experiences as positive, this might help explain the comparative finding. It may also be that the higher affective commitment in the Chinese sample reflects a culturally-conditioned tendency to identify strongly with the occupation as a collective in-group. We did not systematically address the antecedents of commitment in this study, but this is an area where more cross-cultural research would be useful.

Contrary to our expectations, the structural equivalence finding implies that the commitment dimensions have similar relationships with withdrawal cognitions and professional participation in Britain and China, providing no support for our “cultural” hypotheses on the consequences of commitment. We do not have data on the cultural values of our two samples, but it may be that we are seeing the impact of cultural convergence. The relative youth of our Chinese sample (75 per cent were under 40 years old) may help explain this unexpected finding, since there is evidence that younger cohorts of Chinese managers are

less collectivist and more individualist than are previous generations (Ralston, Egri, Stewart, Terpstra & Yu, 1999).

Our pooled analysis suggested that both affective and continuance commitment were negatively associated with occupational withdrawal cognitions, with only normative commitment being non-significant. All three commitment components were significantly associated with the intention to participate in professional activities: for affective and normative commitment this was a positive association, whilst for continuance commitment the association was negative, as expected. We had anticipated affective commitment having the stronger association with intention to participate in professional activities, based on Meyer and Herscovitch's (2001) suggestion that affective commitment reflects an active willingness to be involved, which is likely to be stronger than a commitment based purely on a sense of obligation. In the event, normative commitment had the stronger influence, suggesting that active participation in professional activities reflects a sense of obligation or duty, a feeling that one "ought to" rather than a sense of "wanting to" participate.

Furthermore, our findings suggest that this sense of professional obligation transcends cultural boundaries and applies in the West as well as in the East. This implies that regulators and professional associations seeking to encourage active participation in professional activities would be advised to seek to build a sense of obligation, for example through careful induction and socialization of members and by providing member services focused on support (Meyer & Allen, 1997). In addition, it may be that there is a need to build a habit of active participation relatively early in the professional career, before high levels of continuance commitment begin to undermine the motivation to participate.

Previous research has suggested that the three components of organizational (Jaros, 1997; Meyer & Herscovitch, 2001; Somers, 1995) and occupational commitment (Snape & Redman, 2003) interact in predicting outcomes. The logic of this is that high commitment on

any one component may itself produce a strong attachment, such that incremental increases in other components will have little additional effect (Meyer & Herscovitch, 2001). We found one such two-way interaction effect, for occupational withdrawal cognitions, between affective and continuance commitment. In their study of UK human resource management specialists, Snape and Redman (2003) found a similar interaction for occupational withdrawal cognitions. Their effect was similar to ours, but involved normative rather than affective commitment. Why our findings differ in this way is not immediately obvious. It may be that these findings are occupation specific. Research across a wider range of occupations would be useful in examining such a possibility.

There are several limitations of the study which suggest useful areas for future research. First, our data were cross sectional and were collected from a single source. Although it is common in the literature to refer to withdrawal cognitions and extra-role behaviors as the “consequences” of commitment (e.g., Meyer & Allen, 1997), our cross sectional design means that we cannot draw firm conclusions about causation. Future studies might usefully adopt a longitudinal design. In addition, common method bias is possible since our data was collected from a single source. However, our assessment of the measurement model suggests that our questionnaire items measure distinct constructs, so that common method variance was not a serious problem in our data.

Second, we have examined samples from two cultures and we have in effect assumed that culture is a country-level variable (i.e., China versus Britain), rather than measuring cultural values at the individual level. Our primary interest was in comparing attitudinal differences and similarities between the two countries, rather than with testing specific hypotheses about the impact of individual-level differences in values. However, further studies including samples from a wider range of cultures and testing individual-level



hypotheses would be useful, the former in assessing the generalizability of our findings across national cultures, the latter in assessing the role of individual differences in values.

Third, our study was restricted to accountancy and our samples included accountants working in a range of types of organizations and jobs, including public accountants, auditors and management accountants (the latter especially in the British sample, which was drawn from CIMA). It would be useful to conduct comparative cross-cultural studies for samples working in exactly matched organizations and jobs, and also for other occupations, including the traditional professions (e.g., lawyers), and also the emerging professions (e.g., nursing, paramedics, and other business occupations). Such studies would provide an indication of the development of occupational identities and attachments across countries. This would be particularly interesting in the case of transitional economies such as China, where the emergence of professions as relatively autonomous and self-regulating occupational communities is likely to be an important feature of the economic and social development process.

The great majority of the research on the three-component model of commitment has focused on *organizational* commitment (Meyer & Allen, 1997). Whilst there have been studies applying the three-component model to *occupational* commitment (Meyer et al, 1993; Irving et al, 1997; Snape & Redman, 2003), there is a need for comparative studies of occupational commitment examining Asian samples. In this paper, we have addressed this need, providing evidence on the dimensionality and consequences of occupational commitment in a cross-cultural context. Our comparison of a Chinese and a British sample demonstrates measurement and structural equivalence, providing support for the cross-cultural validity of the three-component model of occupational commitment. Taken along with earlier research, our findings suggest that the Meyer and Allen (1997) three-component model generalizes from the organizational to the occupational focus as well as across cultures.

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Table 1  
*Confirmatory Factor Analyses*

Model	$\chi^2$	df	GFI	CFI	NNFI	RMSEA
<i>a. Chinese sample:</i>						
Independence model	1,845.663	153				
1-factor	959.824	135	0.632	0.513	0.448	0.147
2-factor oblique	568.187	134	0.787	0.743	0.707	0.107
3-factor oblique	440.004	132	0.851	0.818	0.789	0.091
3-factor orthogonal	566.525	135	0.818	0.745	0.711	0.106
<i>b. British sample:</i>						
Independence model	5,736.078	153				
1-factor	3,225.082	135	0.548	0.447	0.373	0.171
2-factor oblique	1,490.323	134	0.760	0.757	0.723	0.113
3-factor oblique	643.582	132	0.913	0.908	0.894	0.070
3-factor orthogonal	801.646	135	0.890	0.881	0.865	0.079
<i>c. Two-group measurement model:</i>						
Independence model	11,288.069	600				
Free parameters	2,034.642	530	0.866	0.859	0.841	0.051
Factor loadings equal	2,108.089	550	0.861	0.854	0.841	0.051
Factor loadings and variances equal	2,158.863	555	0.858	0.850	0.838	0.052
Factor loadings, variances and covariances equal	2,205.693	565	0.855	0.846	0.837	0.052

*Note:* China  $N = 285$ ; Britain  $N = 788$ . GFI = goodness of fit index; CFI = comparative fit index; NNFI = non-normed fit index; RMSEA = root mean square error of approximation.

\* $p < 0.05$ . \*\* $p < 0.01$ .

Table 2

*Means, Standard Deviations, Reliabilities and Correlations Among the Study Variables*

Variable	Mean	Standard deviation	1	2	3	4	5	6	7	8
1. Age (scale 1 to 8)	4.86	1.87	--							
2. Gender (0 = male; 1 = female)	.33	.47	-.32***	--						
3. Occupational tenure	15.45	10.40	.75***	-.43***	--					
4. Occupational withdrawal cognitions	2.84	1.57	-.21***	.12***	-.24***	.77				
5. Prof. participation intent	2.72	1.59	-.22***	.15***	-.40***	.16***	.88			
6. Affective commitment	5.25	.99	.05	.07*	.01	-.36***	.21***	.80		
7. Normative commitment	3.25	1.26	-.11**	.17***	-.30***	-.10**	.46***	.39***	.84	
8. Continuance commitment	4.39	1.31	.12***	-.08**	.19***	-.33***	-.16***	.04	.13***	.86

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ .Note.  $N = 1,073$ . Alphas are shown on the diagonal.

Table 3  
*Results of Regression Analysis for the Consequences of Occupational Commitment*

Variable	Withdrawal cognitions			Professional participation		
	$\beta$	$\Delta R^2$	$R^2$	$\beta$	$\Delta R^2$	$R^2$
Step 1						
Age	-.06			.06		
Gender	.06			-.05		
Occupational tenure	-.12**	.06***	.06***	-.32***	.17***	.17***
Step 2						
Affective	-.38***			.07*		
Normative	.03			.37***		
Continuance	-.29***	.20***	.26***	-.16***	.15***	.32***
Step 3						
AC x NC	-.04					
AC x CC	.09**					
NC x CC	-.00	.01*	.27***			
Step 4						
AC x NC x CC	.04	.00	.27***			

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ .

Note.  $N = 1,073$ . Standardized regression coefficients from the final equation are shown.



Table 4

*Incremental Improvement in Model Fit Due to Individual Commitment Components in Addition to Control Variables and the Other Two Commitment Components*

Variable	Withdrawal cognitions		Professional participation	
	$\Delta R^2$	$\Delta F$	$\Delta R^2$	$\Delta F$
<i>Improvement in model fit due to the addition of:</i>				
Affective	.10	145.99***	.01	6.50*
Normative	.00	.37	.10	151.33***
Continuance	.07	103.63***	.02	38.24***

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ .

Note.  $N = 1,073$ .

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